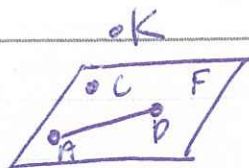


FINAL KEY

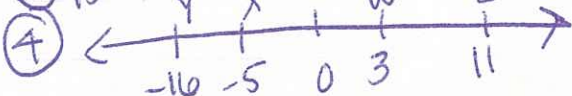
①



*Have students make changes to #5, 11, 72

② 30

③ 15



8 units

⑤ from WZ to ~~XY~~

11 units

⑦ a) (3, 4)

b) (4, 5)

⑧ a) ~~(-12, 1)~~ (-12, 1)

b) (-8, 15)

⑨ $X = \{3, 0\}$

⑩ $\{ -3, 4/3 \}$

a) $4\frac{1}{3}$

b) $-1\frac{2}{3}$

⑪ $\{ -14/3 \leq x \leq 2 \}$

$\{ -14/3 \leq x \leq 2 \}$

⑫ $\{ x < 3 \text{ or } x > 13 \}$

⑬ $\angle CAD \cong \angle DAE$

⑭ $B \cong \angle MQN$

⑮ A bisecting line splits an angle into two \cong \angle s.

⑯ $\angle RSP + \angle PST = \angle RST$

⑰ 116°

⑱ 86°

⑲ 112°

⑳ 85°

㉑ Corresponding

$\angle 1, \angle 5$

$4, 8$

$2, 6$

$3, 7$

Alt Ext

$1, 7$

$2, 8$

Alt. Inter

$4, 6$

$3, 5$

Vertical

$1, 3$

$2, 4$

$5, 7$

$6, 8$

㉒ E

㉓ C

㉔ Line A: $m=3$

B: $m=-1/3$

C: $m=-2/3$

③

㉕ D

㉖ $\frac{y_2 - y_1}{x_2 - x_1} = m$

㉗ $5/7$

㉘ $y = 7/5x + 9/5$

㉙ $y = -1/6x + 2/3$

30

$$y = 2x - 1$$

31

$$\Delta \quad P = S_1 + S_2 + S_3 \quad / \quad A = \frac{1}{2} B H$$

\square

4s

S^2

\square

$2L + 2W$

$L \cdot W$

0

$2\pi r / \pi d$

πr^2

32

$$P = 48 \text{ in}$$

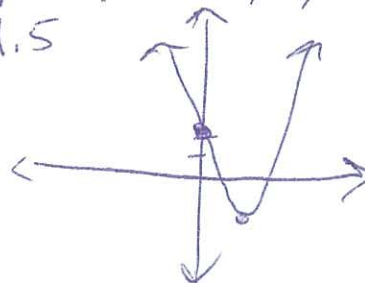
$$A = 90 \text{ in}^2$$

42

$$\text{Vertex: } (3/2, -9/2) \quad / \quad (1.5, -2.5)$$

$$\text{AOS: } 3/2 \quad / \quad 1.5$$

$$\begin{array}{c|c} -1 & 10 \\ 0 & 2 \\ 1 & -2 \\ 2 & -2 \end{array}$$



33

$$P = 108 \text{ ft}$$

$$A = 620 \text{ ft}^2$$

34

$$34\pi \text{ or } 106.92$$

35

$$r = 14 \text{ cm}$$

36

$$180^\circ$$

37

$$360^\circ$$

38

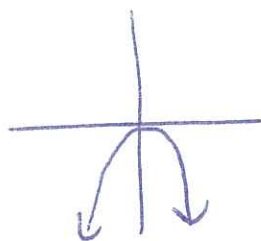
$$x = -4 \quad (-4) + 44 = 40^\circ$$

39

$$66^\circ$$

40

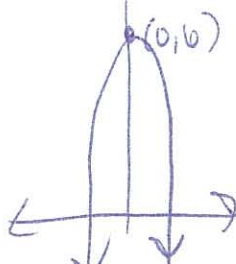
$$\begin{array}{c|c} 0 & 0 \\ -2 & -2 \\ 2 & -2 \\ 4 & -8 \end{array}$$



Reflection, shrink

41

$$\begin{array}{c|c} -2 & -6 \\ -1 & 3 \\ 0 & 6 \\ 1 & 3 \\ 2 & -6 \end{array}$$



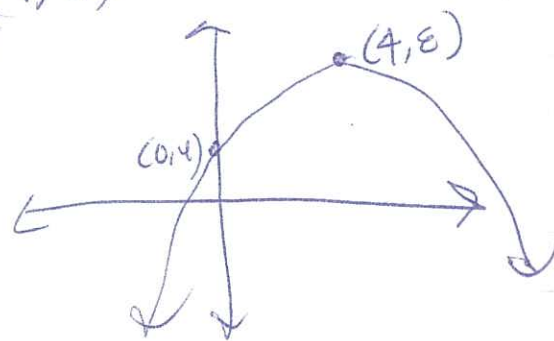
Shift up 6, reflection, stretch

43

$$\text{Vertex: } (4, 8)$$

$$\text{AOS} = 4$$

$$\begin{array}{c|c} -4 & -8 \\ -2 & -1 \\ 0 & 4 \\ 2 & 7 \\ 4 & 8 \end{array}$$



44 C

45 C

46 Stretch, Shift down 4

47 up 6

48 $\{2, 4\}$ AOS: 3 Vertex: (3, -1)

49 No Solution AOS: $-1/4$ V: $(-1/4, -2.83)$

50 D

51 a) No Solution

b) $\{-1, 1\}$

52) D

53) 4, 3

54) $-\frac{1}{2}, 1$

55) $-\frac{7}{6} \rightarrow -\frac{3}{2} + \frac{1}{3}$

56) $-4 + 9 = 5$

57) $\pm \sqrt{11}$
+ 3.3

58) ± 2.12

59) $9 \pm \sqrt{6}$

60) You cannot $\sqrt{}$ a negative; no solution

61) $X = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$

62) 4, -7, -2

$X = 2, -\frac{1}{4}$

63) $\frac{1}{2}, -\frac{3}{2}$

64) C

65) The "16" term should be -1; not +1

66) C

67) E

68) a) $h(t) = -16t^2 + 96t + 70$

b) 2.36 sec; zero

c) 62 ft; trace

69) a) 2.45 sec; zero

b) 1.25 sec; max

c) 22.5 ft; trace

70) $\frac{97}{12h^6}$ Add d) How long was shot put in air at 4 ft? 2.56 sec; intersect

71) $\frac{h^3}{2g^2}$

72) $(x^{a+2})^4 = x^{16}$
 $4a + 8 = 16$
 $4a = 8$
 $a = 2$

73) $35\sqrt{55}$

74) $14r^2$

75) $15c^2\sqrt{2c}$

76) $2m^2n^5\sqrt{31}$

77) $11x^3y^4\sqrt{x}$

78) a^2b

79) $3y^2\sqrt{15x}$

80) $\frac{11}{4m}$

81) $\frac{d}{5}$

82) $\frac{\sqrt{10}}{4}$

83) $\frac{7m^2\sqrt{11m}}{11}$

84) $\frac{5\sqrt{5x}}{2x^2}$

85) $3\sqrt{7} - 14$

86) $60\sqrt{3} + 133$

87) $8\sqrt{3} - \sqrt{6} + \sqrt{2} - 2y$

88) $8\sqrt{5} + 3\sqrt{3}$

89) $-3\sqrt{5} - 6\sqrt{2} - 3\sqrt{8}$

90) x^2

91) -9

92) $-5\sqrt{3}$

$$(93) \frac{yz^4}{3b^2}$$

$$(94) 4x^2y^2 \sqrt{4x^2yz}$$

$$(95) \frac{2xy^2 \sqrt{3xy}}{-3x^2y}$$

$$(96) C$$

$$(97) B$$

$$(98) 2-i$$

$$(99) C$$

$$(100) \frac{6}{13}$$

$$(101) 6\sqrt{w} \sqrt{6w}$$

$$(102) B$$

$$(103) -15$$

$$(104) -7-14i$$

$$(105) -22+73i$$

$$(106) -b-2i$$

$$(107) a) g(-4) = -6 \quad f(g(-4)) = \boxed{-28}$$

$$b) -20$$

$$(108) a) 42$$

$$b) 10$$

$$(109) a) 3(x^2+3)+2$$

$$3x^2+11$$

$$(110) 2(2x+1)+1$$

$$4x+3$$

$$(111) a) (x+2)^2+3(x+2)-11$$

$$x^2+4x+4+3x+6-11$$

$$x^2+7x-1$$

$$b) \cancel{2x^2+16} \\ x^2+3x-9$$

$$(112) a) (2x+2)^2-10$$

$$4x^2+8x+4-10$$

$$4x^2+8x-6$$

$$b) 2x^2-18$$

$$(113) 3r+24=0$$

$$3(17+9) = \boxed{-8}$$

$$(114) (k+6)(k+7)$$

$$\boxed{-6, -7}$$

$$(115) (n-9)(n-5)$$

$$9+5 = \boxed{14}$$

$$(116) x=3 \quad 0.5(3) = \boxed{1.5}$$

$$(117) x < 4.5$$

$$(118) x < -32$$

$$(119) x \geq 4$$